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Remarks/Arguments

Applicants respectfully request favorable reconsideration of the subject application, particularly in view of the above amendment and the following remarks. There is no additional fee for this amendment as the number of independent claims remains unchanged and the total number of claims has been reduced.

Claims 1-18 are currently pending in the subject application. Claims 1-4, 7, 8 and 12-16 have been rejected and Claims 5, 6, 9-11, 17 and 18 have been objected to but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants have amended Claim 1 of the subject application by incorporating the limitations of Claims 3 and 5 with respect to introduction of the gaseous natural gas stream into a plurality of vortex tubes and controlling flow of the gaseous natural gas stream through each of the vortex tubes by a plurality of pressure control valves, each of which is connected to a vortex tube outlet of a corresponding vortex tube. As a result of this amendment of Claim 1, Applicants have canceled Claims 3 and 5, Applicants have amended Claim 4 to depend from Claim 1 in view of the cancellation of Claim 3, and Applicants have amended Claim 6 to depend from Claim 4 in view of the cancellation of Claim 5.

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Applicants have amended Claim 7 by incorporating all of the limitations of Claim 9 as a result of which Claim 9 has been canceled. As a result of the cancellation of Claim 9, Claims 10 and 11, both of which originally depended from Claim 9, have been amended to depend from Claim 7.

Applicants have amended Claim 13 by incorporating certain of the limitations of Claim 15 and 17 with respect to introduction of the gaseous stream into a plurality of vortex tubes and controlling flow of the gaseous stream through each of the vortex tubes by a plurality of pressure control valves, each of which is connected to a vortex tube outlet of a corresponding vortex tube. As a result of this amendment, Claims 15 and 17 have been canceled; Claim 16, which originally depended from Claim 15 has been amended to depend from Claim 13; and Claim 18, which originally depended from Claim 17, has been amended to depend from Claim 13.

The invention claimed by Applicants is a method and apparatus for processing a gaseous stream in which the gaseous stream, comprising a mixture of components to be separated, is introduced into a plurality of vortex tubes, whereby flow of the gaseous stream through each of the vortex tubes is controlled by a plurality of pressure control valves, each of which is connected to a vortex tube outlet of a corresponding vortex tube, forming a hot fluid stream and a cold fluid stream. The cold fluid stream is then introduced into an upper section of a distillation column

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and the hot fluid stream is introduced into a lower section of the distillation column, thereby separating a first portion of the components of the gaseous stream from a second portion of the components of the gaseous stream.

Claims 1-4 have been rejected under 35 U.S.C. 102(b) as being anticipated by Fekete, U.S. Patent 3,775,988 (hereinafter “the Fekete patent”). This rejection is respectfully traversed. The Fekete patent is directed to methods of gas separation and liquefying gases by means of vortex tubes which use the Ranque effect for the cooling of higher pressure gases by expansion and condensation to a liquid when the cooling by expansion reaches the liquefying temperature. Included within the teachings thereof is the introduction of the cold fluid stream from the vortex tube into the upper portion of a rectifying column and introduction of the hot fluid stream into the lower portion of the rectifying column. However, as indicated by the Examiner, nowhere does the Fekete patent teach or suggest a plurality of pressure control valves, each of which is connected to a vortex tube outlet of a corresponding vortex tube as claimed by Applicants. Accordingly, Applicants respectfully urge that, absent such a teaching, the Fekete patent does not anticipate the invention claimed by Applicants in the manner required by 35 U.S.C. 102(b).

Claims 7, 8 and 12 have been rejected under 35 U.S.C. 102(b) as being anticipated by the Fekete patent. Applicants respectfully urge that this rejection is

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rendered moot as a result of the above amendment whereby all of the limitations of Claim 9, which the Examiner has indicated would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, have been incorporated into independent Claim 7.

Claims 13-16 have been rejected under 35 U.S.C. 102(b) as being anticipated by the Fekete patent. This rejection is respectfully traversed. Applicants arguments with respect to the rejection of Claims 1-4 as discussed herein above are equally applicable to this rejection. That is, the Fekete patent neither teaches nor suggests a plurality of pressure control valves, each of which is connected to a vortex tube outlet of a corresponding vortex tube as claimed by Applicants. Accordingly, Applicants respectfully urge that the Fekete patent does not anticipate the invention claimed by Applicants in the manner required by 35 U.S.C. 102(b).

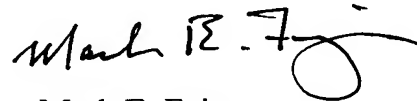
Conclusion

Applicants intend to be fully responsive to the outstanding Office Action. If the Examiner detects any issue which the Examiner believes Applicants have not addressed in this response, Applicants urge the Examiner to contact the undersigned.

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Applicants sincerely believe that this patent application is now in condition for allowance and, thus, respectfully request early allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark E. Fejer", with a stylized flourish at the end.

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